

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
13 October 2005 (13.10.2005)

PCT

(10) International Publication Number
WO 2005/095023 A1

(51) International Patent Classification⁷: **B22D 1/00**,
21/00, 41/05, 45/00, B23K 35/40, F27D 23/04

(21) International Application Number:
PCT/JP2005/006809

(22) International Filing Date: 31 March 2005 (31.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2004-109628 2 April 2004 (02.04.2004) JP

(71) Applicant (for all designated States except US): SENJU
METAL INDUSTRY CO., LTD. [JP/JP]; 23, Sen-
juhashidocho, Adachi-ku, Tokyo 120-8555 (JP).

(72) Inventor; and

(75) Inventor/Applicant (for US only): UESHIMA, Mi-
noru [JP/JP]; 3-9-12, Koganehara, Matsudo-shi Chiba,
270-0021 (JP).

(74) Agent: HIROSE, Shoichi; Tozan Building, 4-2,, Nihon-
bashi Honcho 4-chome,, Chuo-ku, Tokyo 1003-0023 (JP).

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ,
TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA,
ZM, ZW.

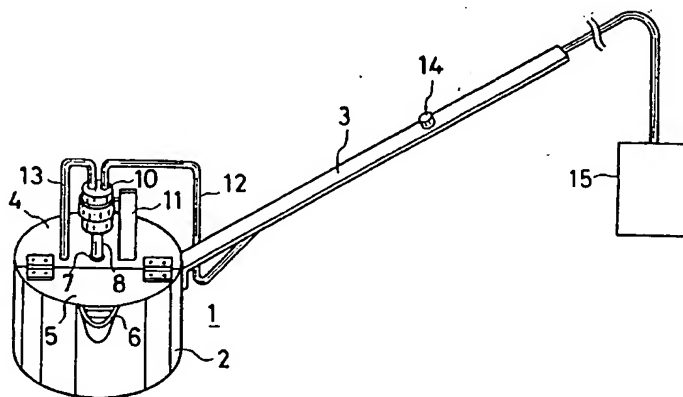
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,
SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guid-
ance Notes on Codes and Abbreviations" appearing at the begin-
ning of each regular issue of the PCT Gazette.

(54) Title: POURING APPARATUS FOR MOLTEN METAL AND CASTING METHOD



(57) Abstract: A pouring apparatus for molten metal includes a stirrer installed in a reservoir. The stirrer is rotated by a rotational drive mechanism installed on the reservoir. Molten solder is placed into the reservoir, high melting point metal particles are charged into the molten solder, stirring is performed with the stirrer to uniformly disperse the metal particles in the molten solder, and then the molten solder and dispersed metal particles are cast into a mold. Casting can be performed quickly after charging the metal particles into the molten solder, so the metal particles do not significantly melt into the molten solder.